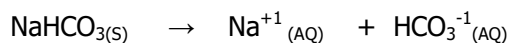
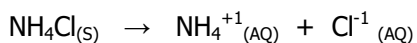
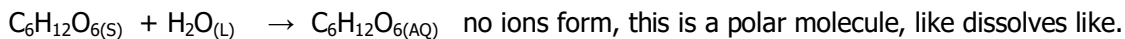


Immiscible means 2 or more liquids that cannot dissolve into one another, like oil and water.

Miscible means the opposite, 2 or more liquids that CAN dissolve into each other, like vegetable and olive oil.

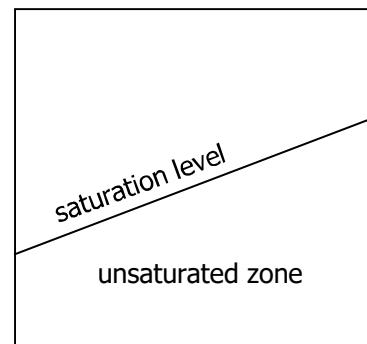
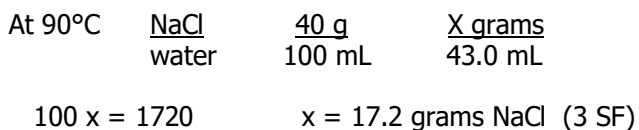


Electrolytes: ALL are electrolytes. Lead (II) bromide will conduct only as a liquid, others are all soluble in H₂O



$$q = mH_f = (44.5 \text{ g})(334 \text{ J/g}) = 14863 \text{ J} = 149,00 \text{ J} \text{ (3 SF)}$$

Draw the Ammonium Chloride graph on Table G

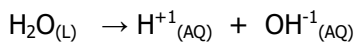


Another name for this would be dynamic equilibrium

Sugar water is NOT an electrolyte. It dissolves in water because the molecule is polar, it does not have radial symmetry. It is a covalent compound (not ionic).

CaCl_{2(l)} is an electrolyte because by definition, ions in motion can conduct electricity.

Draw Carbon tetra bromide plus water in a graduated cylinder.



Powdered sugar dissolves faster because more of it touches the water, where cubed sugar is thicker" and has to wait to dissolve while the sugar closer to the water dissolves first.

Salty water has positive and negative ions in water. Water boils when it has enough energy so that all the molecules can break free of the hydrogen bonds that keep them stuck together (and enough energy to overcome the air pressure pushing down on the surface). With ions in solution, there is even more internal attraction which means that attraction must be overcome as well.

When ions are in water (or snow) they literally get in the way of the hexagonal rings of ice forming. Up to a point, it can lower the temperature needed to freeze water into a solid. It won't work in Antarctica, where it's so cold that the ice is already colder than a new freezing point could ever be.

$$q = mH_v = (11.2 \text{ g})(2260 \text{ J/g}) = 25312 \text{ J} = 25300 \text{ J} \text{ (3 SF)}$$

Water is polar because it does not have radial symmetry.

Soap is a surfactant, which is a chemical that disrupts the hydrogen bonding at the surface, creating little holes for the sulfur or bugs to fall through.

